

# Inside Wallops

National Aeronautics and Space Administration Goddard Space Flight Center Wallops Flight Facility, Wallops Island, Virginia

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## Wallops Team Locates, Refurbishes and Relocates Antenna

Following the failure of the Wallops command destruct antenna system, a team of NASA civil service and contract employees was formed to refurbish a command antenna and relocate a tower.

The team established a multi-purpose approach to resolve the failure and completed the work with a period of approximately six weeks.

A command destruct antenna mounted high on a tower for visibility had to be located, tested and ready for qualification activities in a relatively short period of time.

The completion of this project was time critical, because the antenna was necessary to provide support for the Atlas NROL ELV launch from the Eastern Range in June 2004.

A team with multiple skills was formed in one day and established a high level vision of the work required.

Project management developed and distributed a work schedule within two days.

The team included a welder, electrician, crane operator, rigger, truck driver, machinist, logistician, electrical

engineer, mechanical engineer, civil engineer, local county government official and project manager.

The team located a Canoga model antenna that had been salvaged from the closure of the Bermuda Tracking Station. The antenna had been stored outside on the ground for approximately five years and was in need of substantial refurbishment.

An old, abandoned platform tower also was located near the old firehouse on Wallops Main Base.

NASA representatives and personnel from Accomack County worked to obtain the required Department of Transportation permit to move the large tower structure seven miles from the Wallops Main Base to the Wallops Main Land (Island Gate area).

Several days of heavy rain stopped work on the tower portion of the work, however the team continued to make progress refurbishing the antenna and machining replacement parts during the inclement weather.

Innovative thinking and outstanding teamwork contributed greatly to completion of the project well within the time restraints.

#### Wallops Shorts...... Launch

A NASA single-stage Orion sounding rocket was successfully launched from Wallops Island on June 9, 2004.

This was the seventh Sub-SEM (Space Experiment Module) and included experiments from high schools in Alaska, Georgia, Illinois and Minnesota. Five experiments developed by elementary through junior high school students also were carried in the nose cone.



Photo by Berit Bland

The Improved-Orion lifted off at 6:35 a.m., July 9.

The purpose of the mission is to give students the opportunity to obtain knowledge of engineering processes, scientific experimentation and launch operations. The principal investigator was Ed Parrott, NASA Teacher-on-Loan. The mission manager was Ted Gass, NSROC.

Data was received on all monitored experiments. The payload was recovered and returned to the students approximately three hours after launch for deintegration.



Photo by Keith Koehler

Students wash the payload prior to deintegration.



Photo by James Mason-Foley

Front Row (left to right): Joe Valentine, Brian Purdy, Randy Barfield, Nathan Clark, Steve McNally, Rachael Vaughn

Second Row (left to right): Angela Wingfield, Rob Cass, Billy Young, Alex Lawson, A. J. Kellam, Ronald Wharton, Ralph Harmon

Back Row (left to right): Gregg Frostrom, E.T. Hickman, Jeff Snead, Chuck Bradford, Donnie Holloway, John Stone, John Bloxom, Joel Smith, Dale Milliner, Bill Wallace, Chuck Jacob, Walt Ladish

### Summer Students 2004

Once again students from all over the U.S. are arriving at Wallops to spend the summer working in many different areas and for many different organizations, government and contract. Last year 45 students from several colleges and universities worked under many different programs. This year there are 39 students.

The students are invited to attend an overview of Wallops by John Campbell, Wallops Senior Manager, at 3 p.m., Monday, June 14, in the Conference Room of Building E-2. If you should have a student in your area or see them around the Main Base, be sure to introduce yourself and welcome them.

This year's students and their mentors are:

**Rebecca Hudson** – Salisbury University Mentor: Betty Flowers, Public Affairs Office

**Cheketa N. Nock** – University of Maryland, Eastern Shore Mentor: Bernie Pagliaro, Procurement Office

**Aimee Mendoza** – University of Maryland, Eastern Shore Mentor: Catherine Fairchild, Aircraft Office

**Tahira Javaid** – University of Maryland, Eastern Shore Mentor: John Gerlach, Observational Science Branch

Gregory Groves – University of Maryland, Eastern Shore Mentors: Barbara Justis, Shuttle Small Payloads Projects Office, and, Dave Wilcox, Mechanical Systems Branch

Abass Labay – University of Maryland, Eastern Shore Mentor: Leigh Gatto, Systems Software Engineering Branch

Gabe Ladd – Boston University/ UMES Grad Student Mentor: Geoff Bland, Observational Science Branch

**Sarah Chaudary** – University of Illinois Mentor: Russell Dufrene, GN&C and

Mission Systems Engineering Branch

**Kirsten Williams** – Wheeling-Jesuit University Mentor: Leigh Gatto, Systems

Software Engineering Branch

Andrew Hopkins – Virginia Tech Mentors: Jim Lanzi and Phil Ward, GN&C and Mission Systems Engineering Branch

**Albert Purdy** – University of Pennsylvania Mentor: John Moisan, Observational Science Branch

Eric Wattenbarger – Parks College of St. Louis University Mentor: Chris Shreves, Mechanical

Mentor: Chris Shreves, Mechanical Systems Branch

Robert Fisher – Oklahoma State University Manton: Debbie Feighrother, Balloon

Mentor: Ďebbie Fairbrother, Balloon Program Office **Christopher Johnson** – University of Tennessee

Mentor: Phil Eberspeaker, Sounding Rockets Program Office

**Issac Mensah** – Mississippi State University

Mentor: John Moisan, Observational Science Branch

Alisha Gentry – Eastern Shore Community College

Mentor: Sherry Kleckner, Suborbital and Special Orbital Projects Directorate

**Peter Hitchener** – University of Maryland, Eastern Shore Mentors: John Moisan, Observational Science Branch, and Susannah Warner, Computer Sciences Corporation

**Brian Hogan** – New Mexico State University

Mentor: Henry Cathey, Physical Science Laboratory

**Erick Acosta** – Mew Mexico State University

Mentor: Henry Cathey, Physical Science Laboratory

**Aimee Lemeiux** – Rochester Institute of Technology

Mentor: Jerry Sterling, Mechanical Systems Branch

**Christina Ermie** - Rochester Institute of Technology

Mentor: Walt Costello, Orbital Science Corporation

Catherine Herman - Virginia Tech Mentor: Mark Simko, Orbital Science Corporation

**Benjamin Sigrist** - Messiah College Mentor: Zeb Barfield, Northrop-Grumman

**Aswad Hinton-Lee** - Virginia Tech Mentor: Dennis Melvin, Northrop-Grumman

**Kenneth Kawahara** - Virginia Tech Mentor: Giovanni Rosanova, Orbital Science Corporation

**Joshua Yacobucci** - Penn State Mentor: Rob Marshall, Northrop-Grumman

**Andrew Owens** – Clemson University Mentor: Phil Eberspeaker, NASA Sounding Rocket Program Office Sympathy is extended to the family and friends of

William H. (Bill) Parker who died Sunday, June 6, at Peninsula Regional Medical Center in Salisbury.

Parker retired from NASA Wallops Flight Facility as a machinist supervisor in Building F-10 with over 35 years at WFF.

He is survived by one daughter, one son, and 6 grandchildren. He was preceded in death by a son and his former wife.

Memorial contributions may be made to the Shore Cancer Center, PO Box 17, Nassawadox, VA., 23413.

#### Summer Students cont.

**Abraham Matthew** – Penn State Mentor: Phil Eberspeaker, NASA Sounding Rocket Program Office

**James Smart** - Penn State Mentor: Giovanni Rosanova, Orbital Science Corporation

**Daniel Thomas** – Virginia Tech Mentor: Jason Wood, U.S. Department of Agriculture, Wildlife Services

**Katrina LaCurts** – Pocomoke High Mentor: Pam Pittman, Systems Software Engineering Branch

**Samuel Arumala** – Parkside High Mentor: Geoff Bland, Observational Science Branch

Melissa Waterfield – Arcadia High Mentors: Owen Hooks and Marianne Simko, EG&G

**Jennifer Higgins** – Parkside High Mentor: TBD

**Andrew Cropper** – Nandua High Mentor: Todd Thornes, Computer Sciences Corporation

Andrew Bratten – James M. Bennett Mentor: Joel Simpson, GN&C and Mission Systems Engineering Branch

**Rachel Patterson** – Broadwater Academy

Mentor: David Gwaltney, UNISYS

**Kyle Shahan** – James M. Bennett Mentor: Tom Taylor, Systems Software Engineering Branch

**Joshua Barnes** – Nandua High Mentor: Janie Penn, Aircraft Office

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Editor

Betty Flowers